IMPROVING THE INTERACTION OF COMMUNICATIVELY ANXIOUS STUDENTS USING COOPERATIVE LEARNING

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Previous research has suggested that anxiety causes second language students to withdraw from participation in language class. Furthermore, student participation in negotiated interaction is claimed to be vital to the acquisition process as attempts to resolve communication breakdowns and work toward mutual comprehension make acquisition more effective. It has been suggested that the solution to the anxiety problem and its resulting lack of participation may be found in teaching methodologies that move away from the more traditional, teacher-fronted classrooms and concentrate more on student-centered, cooperative learning techniques. The results of this study confirmed that these techniques reduce the levels of foreign language classroom anxiety and increase the frequency of classroom participation. However, no significant difference was found that demonstrated that greater participation led to greater language proficiency.

The acceptance of the possibility that human action is determined by emotion as well as by reason has been reflected in research that gives as much credence to the affective domain as it has historically bestowed upon the cognitive. In the last two decades, researchers in the field of foreign language acquisition have demonstrated a tremendous surge of interest in the affective variables that affect language acquisition. Since the affective domain is one of the most important facets of human behavior that governs a person's success or failure in language learning, it is important to understand the affective factors that prevent second language learning and look for ways to diminish their effect (Brown 1981). It has been claimed that language learners are strongly influenced by their affective states, and that these states are subject to change as a result of their language learning experiences (Ellis 1994). "Every imaginable feeling accompanies learning, especially learning that can be as closely related to who we are as language learning is. There can be positive feelings such as joy, enthusiasm, satisfaction, warmth" (Ehrman 1996:137). But there can also be unpleasant feelings, among which anxiety has been perceived as one of the

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most debilitating (Horwitz, Horwitz and Cope 1986, MacIntyre and Gardner 1989, Ehrman 1996). Therefore, it behooves the conscientious educator to investigate the ways and means of teaching language so that anxiety is minimized.

There is evidence that suggests that anxiety causes second language students to withdraw from participation in class (Ely 1984, Horwitz et al. 1986, MacIntyre and Gardner 1991, Young 1991a, Phillips 1992). This is a critical issue as second language research has also demonstrated the importance of student participation in negotiated interaction, as attempts to resolve communication breakdowns and work toward mutual comprehension lead to more effective language acquisition (Selinger 1977, Selinger 1983, Long and Porter 1985, Pica and Doughty 1985a, Pica and Doughty 1985b, Kramsch 1985, Porter 1986, Pica 1987, Pica and Doughty 1988, Pica, Holliday, Lewis, and Morgenthaler 1989, Pica, Lincoln-Porter, Paninos, and Linnell 1996). The solution to the anxiety problem and its resulting lack of participation may be found in teaching methodologies that move away from the more traditional, teacher-fronted classrooms and concentrate more on student-centered, cooperative learning techniques (Slavin 1980, Selinger 1983, Pica and Doughty 1985a, Pica and Doughty 1985b, Long and Porter 1985, Porter 1986, Pica 1987, Pica and Doughty 1988, Slavin 1988, Slavin 1989/90, Manning and Lucking 1993, Smagorsky and Fly 1994, Johnson and Johnson 1994, Cohen 1994, Qin, Johnson, and Johnson 1995, Swafford 1995).

The purpose of this study, therefore, is to answer the question as to whether student-centered, cooperative learning techniques in the foreign language classroom will result in lower anxiety levels, greater participation, and higher achievement in anxiety-ridden students than whole group, teacher-fronted classrooms.

ANXIETY IN FOREIGN LANGUAGE ACQUISITION

"Anxiety is the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system" (Horwitz et al. 1986:127). However, because foreign language anxiety has such unique characteristics, it must be defined more specifically. MacIntyre and Gardner (1991) claimed that language anxiety could be set apart from other types of anxiety. They suggest that anxiety is primarily an indiscriminate, negative affective response to some language class experience, and when repeated, it becomes linked with language class and distinguished from other contexts.

Communication apprehension and fear of negative evaluation are two of the components of language anxiety (Horwitz et al. 1986). Communication apprehension incorporates the idea that although the language student can reflect upon and consider developed thoughts and ideas, he has an underdeveloped second language vocabulary which limits his capacity to express them and this inability to express oneself or to comprehend another person leads to frustration and apprehension (MacIntyre and Gardner 1989). Typical behavior patterns of communicatively apprehensive people are communication avoidance and communication withdrawal. Compared to nonapprehensive people, communicatively apprehensive people are more hesitant to converse with others and to pursue social interactions (Aida 1994).

The second component, closely related to the first, is fear of negative evaluation; evaluation in this context referring to both the academic and personal evaluations made of students on the basis of their performance and competence in the target language (MacIntyre and Gardner 1989). Feelings of insecurity about themselves and what they are saying may incite students to feel that they are not capable of creating appropriate social impressions (MacIntyre and Gardner 1991). People who are preoccupied with what others think about them are prone to behave in ways that reduce the possibility of adverse appraisals. They are inclined to evade or leave social situations early when they think others might perceive them unapprovingly. When interacting with others, they rarely initiate conversation or they limit their participation. When applied to the language classroom, students with this fear sit passively, withdraw from activities that could otherwise broaden their language skills, and, in extreme cases, may even cut classes (Aida 1994).

Thus, there is evidence that anxiety affects second language acquisition and that, more often than not, this anxiety can be a debilitating affective barrier that, among other negative consequences, also results in a withdrawal from participation on the part of anxiety-ridden students. This withdrawal from participation is particularly grave when considering the importance of negotiated interaction in the process of language acquisition.

THE ROLE OF INTERACTION IN SECOND LANGUAGE ACQUISITION

Vygotsky (1978) identified two developmental levels in the individual that interact with learning from birth. By using interaction, the individual advances from an "actual developmental level" to a "potential developmental level." The "Zone of Proximal Development," which he defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance of and in collaboration with more capable peers," is between the two levels (p. 86). Through learning which "presupposes a specific social nature and a process by which children grow into the intellectual life of those around them," the potential developmental level becomes the next actual development level (p. 89).

In the foreign language acquisition arena, extensive research demonstrates that the learning environment needs to incorporate opportunities for learners to participate in meaningful social interaction with foreign language users in order to discover the linguistic and sociolinguistic rules for foreign language comprehension and production. Many of the inhibiting factors affecting ineffective classroom interaction is the role that teachers and students normally assume, granting them unequal status as classroom participants. Classroom interaction is usually managed so that students can demonstrate their knowledge and skills to their teacher, elevating her to both language expert and evaluator, and subordinating the students to seekers of the teacher's expertise to guide and assess the advancement of their learning. Classroom discourse, in this context, is not orientated towards a two-way flow of information aimed at mutual comprehension, but rather to a one-way display from student to

teacher. Controlling communication, the teacher first elicits and then assesses students' production. Thus, opportunities to modify and restructure interaction towards mutual comprehension in the commonly used teacher-fronted activities rarely appear because an indispensable requirement for interactional modification is missing in the design and organization of classroom activities. Since languages are acquired, not through memorization of their rules and structures, but through internalizing these rules from input made comprehensible within the context of social interaction, interactional modification is even more crucial (Pica 1987).

Using both pedagogical and linguistic arguments, research has also demonstrated that the implementation of small groups is favorable to foreign language acquisition. From a pedagogical perspective, the advantages of small group interaction are seen in their potential to a) increase the number of opportunities to practice the language; b) improve the quality of student talk; c) individualize instruction; d) create a positive affective climate in the classroom; and e) increase the motivation of the students. From a linguistic perspective, the advantages of interaction in second language acquisition are essentially guided by a three-pronged hypothesis whose important points to note are that: 1) comprehensible input is necessary for acquisition; 2) conversational interactions (negotiation) make the input comprehensible; and 3) comprehensible output aids learners in moving from semantic processing to syntactic processing (Long and Porter 1985).

COOPERATIVE LEARNING

Cooperative learning is defined by Cohen (1994:3) as "students working together in a group small enough that everyone can participate on a collective task that has been clearly assigned. Moreover, students are expected to carry out their task without direct and immediate supervision of the teacher." With his definition of cooperative learning demonstrating his preoccupation with motivation, Slavin (1980:315) defines it as "classroom techniques in which students work on learning activities in small groups and receive rewards or recognition based on their group's performance." Finally, Johnson and Johnson (1994:4) simply state that "cooperation is working together to accomplish a shared goal." Making the distinction between cooperative and collaborative learning, Oxford (1997:443-444) states that cooperative learning is more "structured" and "prescriptive" while collaborative learning, with its different intellectual roots, connotes social constructivism.

Johnson and Johnson (1994) also make their own proposal for attaining productivity using cooperative learning techniques. They believe that students working in small groups can maximize their own and each other's learning, but only under certain conditions. The Johnsons challenge teachers to structure their existing classroom materials cooperatively, including these five essential elements: 1) positive interdependence (the element that makes students feel that they succeed or fail as a team); 2) face-to-face promotive interaction (the help that students give each other to finish the task and encourage each individual's success); 3) individual accountability (the facet of cooperative learning that makes each individual better

for having participated); 4) social skills (the elements that must be overtly taught to assure high quality collaboration and the motivation to use them); and 5) group processing (groups discuss how well they are achieving goals and maintaining effective relationships).

Finally, Dörnyei (1997) brought these cooperative learning precepts into the second language classroom and discussed their importance in providing group structure and the necessary motivation among peers to interact. He states, "The strength of cooperative learning lies in the small group learning format accompanied by positive interdependence among the learners, resulting in intensive interaction and a process of cooperation." Dörnyei perceives cooperative learning as "the learning process which best maximizes the beneficial effects of peer collaboration" (Pp. 490-491).

STATEMENT OF HYPOTHESES

Previous research has demonstrated that communicatively anxious students have the tendency to orally participate less than their non-anxious counterparts. Thus, Hypothesis One seeks to discover if the sample population confirms this trend.

H1: Communicatively anxious students, when submitted to student-centered, cooperative learning foreign language acquisition methodology will demonstrate significantly less apprehension ($\alpha = .05$, using the t- Student test) on the Foreign Language Classroom Anxiety Scale (FLCAS) than communicatively anxious students who attend the more traditional teacher-fronted classes.

Hypothesis Two concerns the projected changes in the levels of participation of the communicatively anxious students in the same sample population.

H2: Communicatively anxious students, when submitted to student-centered, cooperative learning foreign language acquisition methodology will participate significantly more actively ($\alpha = .05$, using the t- Student test) in the classroom as measured by classroom observation and audio-taped small group interaction than communicatively anxious students who attend the more traditional, teacher-fronted classes.

Hypothesis Three deals with the proficiency levels that were affected by the changes in the anxiety and participation levels.

H3: Communicatively anxious students, when submitted to student-centered, cooperative learning foreign language acquisition methodology will more significantly improve more significantly ($\alpha = .05$, using the t- Student test) their language proficiency level as measured by the Oral Proficiency Interview (OPI) than communicatively anxious students who attend the more traditional, teacher-fronted classes.

METHODOLOGY

Subjects of this study were students in the second semester of their second year in the Programa de Pedagogía y Licenciatura en Inglés at the Universidad de Atacama, Copiapó, Chile. This level was chosen to assure that the subjects could speak above

the sentence level, but still feel anxious about their communicative abilities. Subjects were randomly assigned by the university to two separate groups at the beginning of the academic year. At the beginning of the second semester, a modified, Spanish translation of the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz et al. 1986) was administered to both groups. The 10 students registering the highest levels of anxiety in each group constituted the sample population.

The purpose of this experiment was to investigate the behavior of communicatively anxious students under two distinct language teaching methodologies. The control group was submitted to traditional teacher-fronted classes, while the experimental group was involved in student-centered, cooperative learning teaching techniques. Both groups used the content areas presented in *Interactions* by Keller and Thrush (1991). The control group followed the contents using a teacher-fronted presentation while the experimental group used the same content areas, but in the form of information-exchange tasks.

The control group attended classes led by the teacher, whereby student participation was managed in the more "traditional" sense, i.e., student responses were stimulated directly by the teacher, either through group responses or by the teacher directly soliciting an individual's participation. All activities were done in whole group form.

The experimental group was divided into student-selected groups of four or five members who were asked to cooperatively work on information-exchange tasks given by the teacher. The teacher had little involvement throughout the class period, entering into group exchanges only when invited by the students. The previously mentioned five-step plan to successful cooperative learning created by Johnson and Johnson (1994) was integrated into the lessons.

The experimental process lasted the entire semester (14 weeks), each group meeting once a week for two academic hours. Each treatment contained three factors to be evaluated: level of anxiety, achievement, and participation.

Measuring anxiety

The Foreign Language Classroom Anxiety Scale (FLCAS), using a self-report Likert Scale, was developed to provide investigators with a standard instrument for measuring anxiety. The thirty-three items on the FLCAS correspond to the measurement of communication apprehension, negative evaluation, and test anxiety. However, MacIntyre and Gardner's (1989) position that test anxiety reflects general anxiety more than communication anxiety was respected, and those questions on Horwitz´s FLCAS scale that corresponded to test anxiety were eliminated for the purposes of this study. Furthermore, to assure that language impediments did not affect the results of the survey and that the subjects fully understood the questions, as well as attempting to eliminate any anxiety that may have been generated because the survey was written in a foreign language, the FLCAS, which was originally written in English, was translated into Spanish for the purposes of this study. The Cronbach alpha coefficient for the adapted instrument was considered acceptable ($\forall = .9$).

Measuring achievement

A communicatively based pre-test, the Simulated Oral Proficiency Interview (SOPI), was administered to measure the level of language proficiency of each student in the control and experimental groups.

The SOPI was developed by the American Council on the Teaching of Foreign Languages (ACTFL) in conjunction with the Educational Testing Service and several government agencies, and was designed to assess an individual's oral proficiency on the basis of a face-to-face structured conversation (Young 1991b). Four basic proficiency levels are identified: Novice, Intermediate, Advanced, and Superior, with three ratings (Low, Mid, and High) for Novice and Intermediate levels, and only two ratings within Advanced (Advanced and Advanced-High). For the purposes of this study, a numerical value (from one to seven) was assigned to each rating in order to statistically process the results.

A second SOPI was administered to both groups to measure the progress achieved during the second semester. Care was taken to assure that the post-test maintained a similar level of difficulty as the pre-test, manipulating the content areas while maintaining the language functions.

Measuring participation

For the control group, three observers were present in the teacher-fronted classes with each observer focussing on 3 or 4 pre-designated students who were among the sample population. A preliminary observer reliability study demonstrated a level of 97% among classroom observers. Using an observation sheet, the observers counted every utterance made by 1 of the 10 students in the sample population. After every class, each observer tallied up the number of times a selected student participated, and then registered the total. At the end of the semester, the researcher calculated the total frequency of participation of each student.

For the experimental group, frequency of participation was measured in much the same way, except that instead of an observer present in the classroom, each cooperative group was given a tape recorder to record their group sessions. The groups submitted their tapes to the research team at the end of each class period to be evaluated in the same way as the control group. The researcher listened to the tapes and counted the utterances made by each student. Totals were then calculated at the end of the experimental procedure.

RESULTS

Results on anxiety

The difference between the pre- and post-tests of each student was calculated in both the experimental and control groups. With these data, the average difference between the pre- and post-tests for each group was then calculated and these results were submitted to the t-Student statistical test ($\alpha = .05$).

Table 1 : Group data and t-student anxiety results

Experimental group					Control group				
N	n	x	σ	σ̄	N	n	x	σ	σ̄
10	100	16.7	10.57	3.52	10	100	4.2	12.94	4.31
t = 2.246									

Considering that t = 2.246 is greater than the critical value 1.734 ($t_{18;\alpha=0.05}$) the null hypothesis was rejected with 95% statistical confidence, clearly demonstrating that the small group teaching methodology applied to the experimental group produced less anxiety than the traditional teacher-fronted strategies used in the control group.

We had hypothesized that small group, cooperative, student-centered teaching methodologies would result in lower anxiety than the more traditional, teacher-fronted classrooms. This projection was based on previous research that demonstrated that students feel uncomfortable speaking in front of large groups, particularly with people who are not well-known to the anxious students. For this reason, we had speculated that if students could choose their own groups, build a degree of trust, positive interdependence, promotive interaction, cooperative social skills and an effective group dynamic, their anxiety would decrease and thus they would participate more in the language acquisition process. Oxford (1990) listed a number of ways to reduce anxiety in the language classroom, among which is the idea of using cooperative or group learning. The focus was to use pair work, group work, or cooperative learning activities which take the onus off the individual student to perform in front of the whole class and allow greater student-student interaction.

Results on participation

Table 2 shows the group averages for frequency of oral participation, calculated from the student averages, and the corresponding results of the t-Student test, using $\alpha = .05$.

Table 2 : Group data and t-student participation results

Experimental group average					Control group average				
N	n	x	σ	σ̄	N	n	x	σ	σ̄
10	*	87.032	32.70	10.90	10	*	9.45	3.58	1.19
t = 7.076									

*Maximum possible score cannot be calculated as observations were done based upon the number of times a given individual orally participated. There was no maximum limit put upon the student, with this value depending upon students' willingness to communicate.

As t = 7.076 is greater than the critical value 1.734 ($t_{18;\alpha=0.05}$), the null hypothesis was rejected with 95% statistical confidence, thus demonstrating that the methodology used in the experimental group stimulated greater frequency of oral participation than did the techniques used for the control group.

These results confirmed Long and Porter's 1985 study, where they discovered that the amount of student talk was significantly greater in small groups than in teacher-led discussions. Pica and Doughty (1985a) agreed, stating that compared with teacher-fronted activities, group work provides students with many more opportunities to practice using the target language and to engage in direct interaction. In the teacher-fronted classrooms, the teacher restricts the number of occasions when individual students are able to talk. Endorsing group work, these researchers demonstrated that peer interaction offers more practice time where students form hypotheses about the target language and develop greater second language fluency. If quantity of production is a goal, learners will derive great benefit by talking to other learners (Porter 1986).

Language acquisition experts, such as Day (1985), have proposed that the use of the target language is one of the crucial variables in the successful acquisition of the target language, and that the more the students use or practice the foreign language, the more likely they are to learn it. This idea of the importance of the student production of language as a necessary element for acquisition is also strongly supported by the "Output Hypothesis" developed by Swain (1985), where she discusses output as a necessary mechanism for providing opportunities for contextualized, meaningful use to test hypotheses about the target language, and to allow the student to focus on syntax as well as semantics.

Table 3 shows some of the characteristics that distinguish the interaction experienced in the experimental and control groups. It also illustrates the benefits of small group methodology over teacher-fronted classrooms, in the case of our experimental and control groups. This supports Taylor (1987), when he states that language is best acquired when it is not studied in a direct or explicit way, but rather when it is used as a vehicle to do something else −when learners are directly involved in accomplishing something via the language and therefore have a personal interest in the outcome of what they are using the language to do.

Table 3: Characteristics that distinguish interaction

Experimental group	Control group
Participation is based on negotiated inter-action. Input is original, and communication is unrehearsed.	Interaction is often based on repetition, using either the teacher or a peer as a model.
Interaction focusses on meaning and getting the message across.	Interaction is structure-oriented, with attention being focussed on *how* something is said rather than on the message.
Spontaneity abounds. Although at times grammatically incorrect, students make themselves understood.	Spontaneity is scarce. Questions and answers must fit a prescribed grammatical pattern.
Peer correction is the norm.	Teacher correction is abundant –little or no peer or self-correction.
Extended discourse is common in order to explain, narrate, and argue.	Little extended discourse –answers are not explained or expanded.
Although some students talk more than others, all students have the opportunity to speak, and because information-exchange tasks were used, participation was more or less guaranteed to all.	The good students are called upon more often than the struggling students so as to act as models. This limits the participation of those who need it most.
Only student-student interaction. Teacher gave input only when asked.	Interaction is funneled through the teacher. Very little student-student interaction.
Participants are concerned with fluency as well as correctness.	Attention is on correctness. Fluency takes a far second.
Positive affective climate – interaction is characterized by intermittent laughter, encouragement and, at times, even singing.	Classroom environment suffers long silences, students seem somewhat nervous.
Participation was voluntary	Teacher usually designated participants.

For real communication to take place, Morrow (1981) has pointed out that participants must be capable of using spontaneous language above the sentence level. Because the skill of using the formal features of language in isolation does not inherently carry with it communicative competence, a communicative teaching approach must give speakers the opportunity to participate in extended discourse in a real context, as was found in the techniques and tasks applied to the experimental group. Note that the students rarely ventured into extended discourse in the teacher-fronted classrooms.

Furthermore, Johnson (1979) and Morrow (1981) have proposed that one of the major purposes of communication is to bridge an information gap. Thus, a communicative methodology must create situations in which students share information not previously known by all of the interacting participants. That is the reason why information-exchange tasks were implemented in the experimental group. In these terms, communication did not occur in the control group because all of the participants were in possession of the information before speaking began, particularly when so much repetition was demanded of the students on the part of the teacher.

Morrow (1981) also observed that real communication gives speakers choices not only on what they will say, but also on how they will say it, which calls for the hearer to remain in a state of readiness. A communicative methodology, therefore, needs to provide learners with opportunities to engage in unrehearsed communication, as was found in the interaction patterns of the experimental group. Notice in Table 3 that, while the control group used a lot of repetition and was structure-oriented and teacher-controlled, the experimental group was spontaneous and focussed on meaning.

From classroom observation in the control group and the analyses of the cassettes in the experimental group, it was discovered that the affective climates in the classrooms were very distinct. This is of particular importance when considering that the sample population for this study were students who suffer from communication apprehension, and that the affective climate that exists in the classroom will greatly affect whether that anxiety is maintained at a manageable level. As shown in Table 3, the experimental group demonstrated a more positive affective climate, an observation made by virtue of the presence of laughter, singing, and encouragement that was dispersed throughout the tapes. In contrast, the control group maintained strict silence in the classroom, rarely interacted with each other, and seemed much more uptight than their experimental counterparts. If the intention in language classes is to provide opportunities for students to communicate realistically in class, it is necessary to create an atmosphere in which communication will be possible, one in which students can feel free to take communicating initiative and are motivated to do so (Taylor 1987). Lower levels of anxiety, higher motivation, and increased self-esteem are the affective variables that are related to success in second language acquisition (Krashen 1987). This being the case, the qualitative analysis done through observations in this study demonstrates that the affective climate produced in the experimental group gives them a greater advantage in acquiring English.

Finally, more peer correction occurred in the small groups than in the teacher-fronted sessions. The importance of this finding is based upon research by Walz (1982), who discusses the advantages of peer correction. He states, first of all, that it may motivate students who previously thought foreign language was impossible to learn because they see their classmates using it correctly. This motivation may be one of the many factors that helped contribute to the high affectivity found in the experimental group. Second, peer correction (as opposed to teacher correction) involves a greater number of students in the running of the class. Third, the corrections

tend to be at a level that others in the class understand. And last, and probably the most central to this investigation, is that peer correction increases the amount of time students talk in class and reduces the amount of time that the teacher must talk.

So what can be concluded from the data gathered on the frequency and quality of participation, comparing small group interaction with teacher-fronted activity, is that from both a quantitative and qualitative perspective, small group interaction stimulates students' participation and results in higher quality communication, as it is less rehearsed, more focussed on meaning, and carried out in a more positive affective climate.

Language proficiency results

We had hypothesized that the experimental group would experience a greater difference between the pre- and post-test, in favor of greater proficiency. Results are presented in Table 4. The average difference between the pre- and post-tests of each student was calculated. These results were then averaged for both the control and experimental groups, and were submitted to the t-Student statistical measure (α=.05). Following are the results:

Table 4 : Group data and t-student proficiency results

Experimental group					Control group average				
N	n	x	σ	$\overline{\sigma}$	N	n	x	σ	σ
10	7	1.65	0.9233	0.3078	10	7	1.35	0.8675	0.2892
t = 0.7143									

Considering that t = 0.7143 is less than 1.734 ($t_{18;\alpha=0.05}$), the null hypothesis cannot be rejected demonstrating that no significant statistical difference resulted from the methodologies applied to the experimental and control groups as concerns levels of student language proficiency. However, it is important to note that the experimental group did demonstrate a greater average difference, but this could not be statistically shown as significant. What this says is that, in terms of proficiency, both groups, under the experimental conditions found in this study, were very similar.

Speculating on this lack of statistical difference, it is possible that these results can be explained by the research design, which limited the number of hours of classroom activity that was controlled by the researcher. Students in their second year of the Programa de Pedagogía y Licenciatura en Inglés at the Universidad de Atacama have a total of twenty hours per week of English classes. This investigation controlled only two hours of Language class, leaving eighteen hours outside of the chosen methodologies. Due to the impossibility of controlling all of the possible variables present in the other classes, the desired statistical difference between the

two groups concerning proficiency could not be found. In the cases of the comparison between the experimental and control groups with regard to anxiety and participation, both of those analyses were directly corresponding to the two hours being controlled, while the proficiency measure was a global measure that took other variables into account.

CONCLUSIONS

At the beginning of this study, the question asked was whether student-centered, cooperative learning techniques in the foreign language classroom will result in lower anxiety levels, greater participation, and higher achievement in anxiety-ridden students than whole group, teacher-fronted classrooms. While the answer to the anxiety and participation question was an affirmative one, concerning achievement, no significant difference was found either way. In this study, evidence has been found that connects lower anxiety and higher participation to the non-traditional language teaching methodologies using small group interaction. From a pedagogical perspective, those teachers who use activities facilitative of cooperative learning have reason to feel more confident about their reception. Conversely, those language educators who have avoided these types of activities on the grounds that they do not generate a positive classroom environment or that they do not produce high levels of participation might want to reconsider their trepidation in utilizing small group interaction. Also, it cannot be claimed that cooperative grouping works at cross purposes with increased levels of language proficiency, but only that statistical analysis demonstrates that under the research parameters of this study, language proficiency increased at about the same level with small group interaction and teacher-fronted classrooms. Further research that controls more classroom hours and that uses larger sample populations may demonstrate that proficiency increases with lower anxiety and higher participation.

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